

## Use of the Preserve

The National Park Service Organic Act directs the Service to preserve park resources “unimpaired,” while providing for public enjoyment of those resources. Because public enjoyment cannot be sustained if park resources are damaged or compromised, resource protection must necessarily be the Service’s paramount responsibility. Within that constraint, the Service recognizes its obligation to provide for a broad range of educational, healthful, enjoyable, and otherwise appropriate activities that foster a continuing public appreciation for park resources and values.



### CARRYING CAPACITY

Park managers are often faced with decisions about how much use of a particular area is appropriate, given the need to protect resources. Decisions regarding buildings, such as museums and historic structures, are usually dictated by law and the physical capacity of the space to contain people. Visitors face these limits everywhere they go and they are widely accepted. Similar decisions regarding natural spaces are not as easily derived, nor readily accepted. Most people understand that there is a need to limit the number of people that can float the Colorado River at the same time, in order to preserve the experience. However, determining how many people can use a particular area of the park without impacting resources or other visitors experience is often more difficult.

A widely accepted definition of carrying capacity is:

*“the character of use that can be supported over a specific time by an area developed at a certain level without causing excessive damage to either the physical environment or the experience of the visitor.”*

There are three principal components that relate to determining the carrying capacity for a national park:

The ecological or physical capabilities of the natural and cultural resources to sustain certain levels of visitor use without reaching unacceptable levels of damage. Each landscape may have varying abilities to absorb different kinds of and levels of visitor use before unacceptable levels of impacts occur.

The sociological carrying capacity is the ability of visitors to enjoy and appreciate these resources without interference by other visitors. Determining social carrying capacity can be one of the most difficult parts of the three components. Sheer numbers relating to visitation in an area are not a valid determinant of a quality visitor experience. Other factors such as visitor behavior, preconceived expectations and social norms of the dominant user group can affect visitor enjoyment.

The type and amount of NPS management that has been, or can be applied to the activity to mitigate unwanted impacts are also a factor. This component relates to the management of such things as roads, parking lots, buildings, trails, and visitor information. For example, providing interpretive services is an effective way to instill in the visitors an understanding and appreciation for the park resources. Such understanding helps implement carrying capacity for a particular area. Limiting parking in certain areas can effectively limit visitation.

General management plans provide NPS managers with management direction on a broad, prescriptive level. Management objectives for carrying capacity are thus written as narrative statements. These statements define the desired future visitor experience and resource conditions in qualitative terms such as “sense of seclusion,” or “low degree of tolerance for resource degradation.” These qualitative descriptors, which have been identified as “desired visitor experience and resource conditions,” would be refined and translated into quantitative standards during future implementation planning. As previously mentioned indicators and standards of quality for both the physical and social environments would be developed within future implementation plans. These products would be quantifiable and measurable aspects of the carrying capacity process. Mojave would undertake data-gathering efforts, including visitor surveys, to help define the visitor experience and resource protection goals that should define the carrying capacity of the Preserve.

## Existing Land Uses and Desired Future Conditions

Mojave National Preserve is a large expanse of natural Mojave Desert ecosystem. Managing the area to preserve this system as a self-sustaining environment where native species thrive is our overall management goal. Mixed throughout this environment are existing land uses, both historic and present day, as well as special management areas (wilderness, critical habitat, state park, etc.). Some of these land uses are important for providing visitor access (roads), help tell the story of human use and occupation, or protect sensitive resources such as desert tortoise critical habitat. Some existing land uses (pipelines, electric transmission lines, telephone relay sites, antennas, billboards, etc.) do not conform well with our preservation mission and management goals, but are authorized pre-existing uses. These are identified here to recognize their existence as non-conforming uses that dissect the park and at times may interfere with the visitor experience.

**Desired future conditions** for natural and cultural resources and the visitor experiences are described below. The descriptions are qualitative in nature and can be translated into quantitative standards over time during the implementation of this plan. Some descriptions could be applied to broad areas such as wilderness, while others apply to smaller areas such as road corridors and points of development. These descriptions serve as guides for managing the land and facilities to achieve desired carrying capacities.

### Natural Environment

The vast majority of Mojave National Preserve is a natural Mojave Desert ecosystem. This desired future condition could be thought of as the primary land use or zone that underlies all the subsequent use descriptions that follow. Except for developed areas (roads, railroads, visitor centers, campgrounds, etc.) the desired future conditions for the natural environment are the ground floor conditions that all the other land classifications build upon. **Natural Areas, Wilderness, desert tortoise critical habitat and the Granite Mountains Natural Reserve are all components of the natural environment** where resource protection standards and visitor experience are altered by additional laws and management goals for these areas.

**Natural Areas.** Natural areas of the Preserve that occur outside of designated wilderness provide an informal, self-guided desert learning experience for visitors. People are encouraged to get out of their

vehicles and walk to features. The pace is slow with low to moderate levels of noise. Visitors typically focus on specific resources with few visual intrusions. Visitors experience a sense of learning through onsite interpretation or other means.

The length of stay at each site is relatively short in comparison to the time visitors spend in the Preserve. There is a moderate amount of social crowding and moderate interaction at points of interest and along dead-end trails. Guided ranger walks are occasionally provided for visitors at some locations. Development is limited to items such as low interpretive panels, small directional signs, and hardened dirt paths. Fences are used as a last resort to protect resources if other management efforts do not work. The tolerance for resource degradation is low to moderate, depending on the sensitivity of the resource. The degree of onsite visitor and resource management is moderate and increases or decreases with visitation levels.

**Wilderness.** Wilderness as a desired future condition, is a subset of the natural environment, where protection of the natural values and resources is the primary management goal. Restrictions on use of these areas are imposed by law and policy in order to provide a primitive environment free from modern mechanization and motorized travel.

Visitors in this landscape experience a primitive environment largely untouched by people. Remnants of human occupation within wilderness areas that are either on or eligible for the National Register, will be identified, protected, and preserved as part of the desert landscape. However, for purposes of protection and because the desired future condition is maintaining the wilderness values (as required by the Act), little to no effort would be made to direct visitors to these historic resources. Within Mojave National Preserve's wilderness area the level of physical exertion required to hike or ride horseback into the area varies from an easy walk to a strenuous trek. A minimal number of hiking trails are present, often requiring a person to travel cross-country to get to a desired destination. Abandoned roads may also be used as routes of travel. Some restoration of pre-existing roads, mines, and dumps will likely occur as cultural and natural studies are completed. Opportunities for independence, closeness to nature, tranquility, and the application of outdoor skills are high. Opportunities for social interaction with other visitors are low, as is the probability of encountering NPS employees. Likewise, evidence of other visitors is minimal.

The landscape offers a high degree of challenge and adventure for visitors. The visual quality of the landscape contributes significantly to the visitor experience and needs to be protected. The tolerance for resource degradation is low, with the exception of designated trail corridors, where a slightly higher level of degradation is allowed within a few feet of the trail and at points where camping occurs. A minimal amount of resource and visitor management is present. Offsite visitor management (provision of information) is low to moderate.

***Desert Tortoise Critical Habitat.*** Desert tortoise critical habitat was formally designated by the U.S. Fish and Wildlife Service in 1994 and identifies those areas of the Preserve known to contain the best quality tortoise habitat at that time. Desert tortoise critical habitat overlays both wilderness and natural areas, and is a subset of the natural environment, where protection of natural values and resources is primary. However, it is dissected by roads and utility corridors. These areas are managed for protection of the desert tortoise and their habitat.

Visitors in this landscape encounter the same general conditions and experiences as described above for the natural environment and wilderness, depending on the particular location. They may also encounter developed areas, roads, railroads, utility corridors or historic features. This subset of the natural area provides the best opportunities for observing and learning about desert tortoise habitat, life history and threats.

***Granite Mountains Natural Reserve.*** The Granite Mountains Natural Reserve is a 9,000-acre area that overlays both wilderness and non-wilderness areas. Wilderness designation over the majority of the Reserve prevents the use of mechanized equipment and motorized vehicles. It is a natural environment where continuation of arid lands research and educational activities on desert ecosystems is assured by legislation. The area is co-managed by the National Park Service and the University of California under a cooperative agreement. The area is mostly undeveloped, with only a single trail access corridor along an old mining road. The university has a few administrative support buildings on their property.

Visitors to this area encounter the same general conditions and experiences as described above for natural environment and wilderness. Additional restrictions on recreational visitor use may be applied as necessary to ensure protection of long term research areas.

## Developed Areas

Mixed throughout the natural environment are existing land uses, both historic and present day. Some of these land uses are important for providing visitor access (roads), help tell the story of human use and occupation or provide facilities for visitor enjoyment. Unlike non-conforming uses, these developments are considered an important part of the Preserve and are managed as such.

***Historic Preservation Areas.*** Historic preservation areas offer visitors a chance to gain a sense of the past by using as many of their senses possible without compromising the integrity of the resource. Often there are opportunities to learn by vicariously experiencing the emotions and thoughts of those who lived in the past. The experience is often a visual one, with feelings gained by physical spaces, smells, and sounds adding to the whole experience. Interpretive information adds color and meaning to the experience.

The degree of tolerance for resource degradation is low for historic resources. The chance of seeing other visitors and having social interaction is potentially high, depending on the degree of public access and visitor interest. The opportunity for contact with NPS personnel is high where ranger-led tours are offered. Visitor behavior is managed to protect the character of each place. NPS onsite management is high at sites with high visitation and impact sensitivity. Paved walks, fences, and interpretive panels are used as needed to accommodate public access and interest in accordance with the Secretary of the Interior's Standards for Rehabilitation. If interest is high, improvements may be needed to allow visitors to experience these resources while protecting them from visitor use impacts. Improvements must not distract from the significance of each location. Some features are convenient and easily accessible with little need for visitors to exert themselves, apply outdoor skills, or make a long time commitment to see the area. Some features are at remote locations and would require more effort and skill to experience. Adventure is often a part of the visitor experience at these places. The way in which people currently gain access to these locations should remain unchanged since this experience contributes to resource protection and its appreciation. Changes in access should only be made if there is strong justification to do so. Remote locations should provide a primitive setting with opportunities for solitude, exploration, and learning with minimal amounts of human intervention such as signs or interpretive panels.

**Visitor and Administrative Facilities.** The visitor experience in these areas is heavily influenced by structures and other fabricated features, and they are part of the visitor experience. The pace is varied, with opportunities to walk and drive. The site often is noisy with vehicles and people nearby. Visitors have opportunities to hike, learn about resources, and receive many services from facilities. Visual distractions from other visitors and their vehicles are common and expected. Buildings and other facilities are predominant, but where exceptional natural elements or cultural elements are present, they are part of the visitor experience. The constructed features are coordinated by design to reduce the visual contrast with the natural or cultural setting. Although these are developed areas, they still offer a contrast from urban life and a chance to relax and enjoy the outdoors.

Most facilities are convenient and easily accessible by the public with little need for visitors to exert themselves, apply outdoor skills, or make a long-time commitment to see the area. Opportunities for adventure are relatively unimportant. Many areas provide a strong opportunity for social interaction. Encounters with NPS staff are frequent. The tolerance for social crowding is high but there are opportunities to learn and experience a change in pace from city life. Most facilities are accessible to visitors with disabilities. Resource impacts at visitor facilities are as low as possible, occurrences only when there is no practicable alternative. Visitors and facilities are intensively managed for resource protection, visitor management, and safety (that is, there are fences, law enforcement is intensive, and visitor activities are monitored or restricted).

**Paved and Maintained Dirt Roads.** Paved and maintained dirt roads are the dominant experience for most visitors. Visitors use these narrow corridors and roadside pullouts for touring, enjoying scenic overlooks, and gaining access to natural and cultural features. While traveling, visitors may read about and understand the features they are seeing. Bicycle travel is allowed, but motorized vehicles are more common. Viewing the scenery is very important, but the views are often of distant landscapes. Vistas are protected. First-time visitors may have a sense of exploration, but little physical exertion is needed, and outdoor skills are not necessary. Visitors may spend a long time in this zone. The probability of encountering other visitors is high, although chances for social interaction are low except at roadside pullouts. The opportunity for direct contact with NPS staff is low unless visitors seek out assistance at visitor centers or while engaged in a consumptive resource activity such as hunting and mining.

A moderate to high level of NPS management (highway signs, visitor protection) is needed to provide visitors with a safe and enjoyable experience. Because maintenance work and driving off roads can cause dirt roads to grow wider, it is necessary to specify maximum road widths and approved pullouts. Roads are limited to specified widths unless where strong justification exists. Resources can be modified for essential visitors and administrative operational needs. The tolerance for resource degradation in these corridors is moderate. Allowable impacts are restricted to a short distance from roads and pullouts.

**Unmaintained Dirt and Four-Wheel Drive Roads.** Unmaintained dirt roads provide a unique experience for drivers and other users such as mountain bike riders, equestrians, and hikers. The predominant use is by visitors in vehicles driving to enjoy the unique desert environment, or to go to historic mining sites, or to a specific feature. Some visitors experience a strong sense of exploration, challenge, and adventure. Travel speeds are slow to moderate, with the potential of frequent stops. Many of these roads offer a sense of backcountry travel and give visitors a sense of escape from urban life. The areas through which these roads pass are predominantly natural, but there is evidence of people having used the area in the past and present. Increased impacts from human use are prevented to protect the existing qualities of the landscape. Support features such as small directional signs or interpretive panels are present but infrequently seen and inconspicuous in character.

Visitors need to extend themselves, use outdoor skills, and make a large time commitment. Some roads with rough conditions require specific vehicles with 4x4 driving skills and more time to complete the route. Opportunities for challenge and adventure are available on some 2-wheel drive roads that require high clearance vehicles. Opportunities for social interaction are low, unless people are traveling in a group.

A moderate level of management is provided on heavily used roads to protect resources and visitors. Most people who use these roads do not want to see many other vehicles. Speed limits will be enforced using radar and other law enforcement techniques.

Resource modification is evident, but where possible, it harmonizes with the natural environment. The Preserve's tolerance for resource degradation in

this zone is low except that limited signs, road surfaces and shoulders, pullouts, and camping areas are permitted. It is recognized that some 4-wheel drive roads have a number of short sections that have been widened through natural occurrences such as washouts.

**Non-Conforming Uses.** Some existing land uses (pipelines, electric transmission lines, telephone relay sites, antennas, billboards, etc.) do not conform well with the NPS preservation mission and management goals, but are pre-existing uses. These are identified here to recognize their existence as non-conforming uses that dissect the park and at times may interfere with the visitor experience. The management philosophy towards these developments is to minimize their intrusion and manage towards their eventual elimination, either through technological improvements or acquisition. Many of these uses will likely remain intact throughout the life of this plan, but as opportunities arise to minimize or eliminate them, the park would work towards that end.

## RECREATIONAL ACTIVITIES

### *Background*

Mojave National Preserve has long provided recreational opportunities for people from all over the world. Its nearness to major population centers such as Los Angeles and Las Vegas, combined with major interstate highways, gives residents the opportunity for relatively easy access to many parts of the desert. Most of the landscape is open, with broad vistas of relatively undeveloped land. The vastness of the landscape offers visitors an opportunity for seclusion and a sense of wilderness, even while in a vehicle. Early miners and ranchers developed roads that today offer visitors a chance to drive into many remote locations where informal camping has traditionally occurred. There are several major sand dune systems. Hikers play on and explore the Kelso Dunes. There are many cultural sites such as abandoned mining districts, which many people love to visit. The mountain ranges, such as the New York and Providence Mountains, offer a contrast to the dry hot valleys, attracting many people in summer with cooler temperatures and forested areas. Volcanic cinder cones, lava flows, rock outcrops, and unique wildlife and vegetation are other elements that attract people. The land has many extremes and contrasts that people come to experience, such as the high summer temperatures. Most visitors come to the desert simply to see the outstanding scenery of this diverse landscape.



Most visitation to the Preserve occurs between October and May. It is estimated that 72% of overnight visitation occurs at this time. In July 1996, 12,842 vehicles entered the Preserve, compared to 14,617 in March 1997. While the numbers are very close, relatively few people stay more than a few hours in the summer. Campground use statistics show a different picture of summer visitation. During July 1996 there were 35-user days, and during March 1997, there were 1,412. These numbers reflect use of all developed campgrounds. Campground use has increased over the years; the Bureau of Land Management recorded 960 user-days during April 1991; while the National Park Service recorded 1,252 in 1996 and 1,500 in 1997. These numbers may reflect having campground hosts and different BLM and NPS collection processes.

Visitation to the Preserve over the life of this plan could increase by 50–60 percent (assuming 3–4 percent increase per year), resulting in an annual visitor increase of perhaps 200,000 visitors by 2016. These projections are based on our local experience since 1994, and the trends reflected nationally at NPS units.

The 1997 visitor study revealed that 64% of the visitors were from California and 11% were from Nevada. Most people started from Las Vegas, Nevada or from Twentynine Palms or Barstow, California on the day of their visit to the Preserve. There may also be a large number of visitors who are taking a scenic route between Joshua Tree National Park and Death Valley. The most concentrated use periods are the first two or three weekends of the upland bird and deer seasons in October and November, and the Thanksgiving and Easter weekends. April had the highest visitation record of any month during 1996.

Many residents of adjacent communities such as Needles, Laughlin and Bullhead City come to the higher elevations in the Preserve during the summer

to escape the heat and enjoy a change of scenery. Most visitation to the Preserve occurs on weekends when residents of California, Arizona and Nevada arrive. Daytime recreational use is expected to continue to increase as the populations of Clark County and Laughlin, Nevada, Bullhead City and Kingman, Arizona, Barstow and Needles, California continue to grow.

Traffic counters and field observations indicate that many people are using roads in the Preserve as a route between Las Vegas and Twentynine Palms. Most use in the Preserve is sightseeing and driving for recreation, but the diverse landscape offers many other forms of recreation including activities such as hunting, nature study, rock-climbing, mountain biking, exploring by 4WD vehicle, and hiking.

### **Plan Actions**

It is recognized that recreational trends continue to change and that specific, detailed directions on certain activities need to be placed under a guiding statement providing overall direction. NPS *Management Policies* provides guidance for determining the appropriateness of recreational activities in units of the national park system.

Unless the activity is mandated by statute, the National Park Service will not allow a recreational activity within a park if it will involve any of the following results:

- inconsistency with the park's enabling legislation or proclamation or derogation of the values or purposes for which the park was established
- unacceptable impacts on visitor enjoyment due to interference or conflict with other visitor use activities
- consumptive use of park resources (does not apply to certain traditional activities specifically authorized by NPS general regulations)
- unacceptable impacts on park resources or natural processes
- unacceptable levels of danger to the welfare or safety of the public, including participants

NPS *Management Policies* also states that each unit of the national park system is responsible for determining which recreational activities are appropriate or inappropriate, based upon the unit's purposes and values (see the purpose and significance statements for Mojave National Preserve).

## **Rock-Climbing**

### **Background**

There are potential or actual rock-climbing resources in the following areas: Clark Mountain, the Granite Mountains, the New York Mountains, Mid Hills, Teutonia Peak, and the Hole-in-the-Wall area. With the exception of Clark Mountain, these locations are lightly utilized for technical rock-climbing, and contain few fixed anchors (climbing bolts and other devices not removed after each climb). The climbing areas at Clark Mountain, Teutonia Peak and the New York Mountains are within designated wilderness. Climbing areas at Mid Hills and Granite Mountains are both within and outside wilderness, and potential climbing at Hole-in-the-Wall is outside wilderness.

Access to the climbing resources at the Granite Mountains, New York Mountains, Mid Hills, Teutonia Peak, and Hole-in-the-Wall requires a variety of two-wheel drive, high clearance, and four-wheel drive vehicles depending upon one's destination. In addition, accessing all these areas requires hiking. Hole-in-the-Wall is the most accessible resource, requiring only a two-wheel drive vehicle, and a short, easy hike. Climbing in the New York Mountains is likely the most remote, requiring a four-wheel drive vehicle and long, strenuous hiking to the mountain's upper elevations.

Mojave has a substantial, high-quality climbing resource at Clark Mountain. Visits by park staff, personal communications, and lay publications suggest that the Clark Mountain area provides numerous climbing routes at a high degree of difficulty. Most or all of these routes rely on bolts for protection. It is unknown if more routes have been developed. The use of a high-clearance, four-wheel drive vehicle is necessary to reach the Clark Mountain trailhead. Accessing the various climbing routes requires 30 to 90 minutes of strenuous hiking and rock scrambling. The climbing area on Clark Mountain also lies completely within designated wilderness.

### **Plan Actions**

The management goal will be to allow climbers to enjoy their experience with a sense of challenge in a manner that will leave the environment relatively unchanged and not impacted, allowing future climbers an opportunity for a similar experience. Climbing will be managed for the following objectives:

- protecting cultural resources such as rock art and historic or prehistoric sites

- protecting natural resources, including threatened and endangered plants and animals
- protecting wilderness resources and values from visual and physical impacts
- protecting the outdoor recreational experiences of visitors not participating in rock-climbing
- developing an open communication line with the climbing community to promote a spirit of cooperation in achieving objectives and resolving problems
- promoting clean climbing methods and environmentally-friendly climbing equipment
- All wilderness areas within Mojave will be closed to any further placement of new bolts and other types of fixed anchors. Fixed anchors in wilderness will only be allowed if they currently exist (at the time of the signing of the general management plan), if they are placed as a rappel anchor at the top of a route, or if they are an in-kind replacement of an existing bolt or anchor for safety purposes.
- The area immediately behind and within sight (within 500 feet) of the Hole-in-the-Wall visitor center will be closed to technical rock-climbing, including the placement of permanent climbing anchors.
- Mojave will study climbing impacts on sheep, and if warranted, close climbing at Clark Mountain during sheep lambing season.

The National Park Service will seek ways to educate the public on proper climbing ethics and outdoor skills such as those promoted by the National Outdoor Leadership School's "Leave No Trace" program for climbing. Mojave will work with groups such as the Access Fund to educate the park's climbing community. Mojave will monitor rock-climbing use levels and related activities in the coming years to determine the effectiveness of current management in achieving the previously mentioned goals and objectives.

Power drills will not be allowed in the Preserve at any time. Chipping of rock faces and gluing of holds onto the rock will be prohibited, as will intentional removal of vegetation from climbing routes. Climbing will not be permitted within 500 feet of any prehistoric or historic rock art site or other cultural resource.

Existing bolts and other fixed anchors that are deemed unsafe by climbers could be replaced on a piece-by-piece basis. Replacement of existing bolts

will be accomplished in a manner that removes the old bolt with minimum damage to the rock. Whenever possible for the safe replacement of an existing bolt, the existing bolt hole will be utilized for the replacement bolt. If use of the existing hole is not possible, the old hole will be filled with a natural colored rock material blended with bonding agents to permanently fill the hole.

The NPS will require that all bolts and other fixed anchors, chalk, slings, quick draws, and any other piece of equipment that will be left on the rock for an extended period, be of an environmentally-friendly color. Leaving fixed ropes for extended periods for the purpose of ascending and descending (rappelling) rock walls is not allowed.

The Clark Mountains are also heavily used by desert bighorn sheep. Questions exist as to the potential for climbers to impact the Clark Mountain sheep population, especially during lambing season (February–June). Mojave will study climbing impacts to sheep, and if necessary, impose seasonal closures to Clark Mountain in order to protect the bighorn. The study itself could include a temporary closure on visitation to Clark Mountain to serve as a scientific control period.

Those lands in the Granite Mountains Natural Reserve that are owned by the University of California are dedicated to the purposes of scientific study and education. The university prohibits rock-climbing on their lands because they consider this use to be incompatible with their scientific mission and due to the potential for damage to long-term research plots.

The NPS will discourage multiple social trails and heavily impacted zones at the base of climbs, and will employ barriers, revegetation, and possible closures as a means to prevent these impacts. Mojave may close any area, rock feature, or climbing route to protect wildlife, natural or cultural resources, or wilderness experiences. NPS authority for closures is granted in 36 CFR 1.5.

## **Hunting, Fishing, and Trapping**

### ***Background***

The California Desert Protection Act permits hunting, fishing, and trapping on lands and waters within the Preserve in accordance with applicable federal and state laws. However, the Secretary of the Interior may designate areas where, and establish periods when, no hunting, fishing, or trapping will be per-

mitted for reasons of public safety, administration, or compliance with provisions of applicable law. The National Park Service authority extends not only to federal lands, but to private inholdings and adjacent private land where activities carried out on those lands interfere with the designated use of the federal lands. The National Park Service consults with the California Department of Fish and Game prior to the NPS designation of closed seasons or areas.

Hunting on federal and all private lands within the Preserve is allowed and administered by California Department of Fish and Game and NPS regulations. Commonly hunted game species include mourning doves, quail, chukar, rabbits, bighorn sheep, and mule deer. Nongame species are also hunted within the Preserve. These game and nongame species are not uniformly distributed in the Mojave National Preserve. The bighorn sheep prefer steep, mountainous, open terrain; the Rocky Mountain mule deer's preference is high elevation Great Basin habitats; and the game birds' habitat of choice is near springs or guzzlers.

Mojave National Preserve is one of the few places in California where bighorn sheep hunting is allowed. Limited hunting of bighorns began in 1987 (BLM 1988). A limited number of permits to hunt bighorn sheep are issued each year through a lottery system. One other permit in addition to the permits issued by the lottery system is awarded each year to the highest bidder, allowing him/her to hunt one animal.

Chukar have been introduced throughout most of the Preserve. Rocky Mountain mule deer were introduced in the New York Mountains of the Preserve in the late 1940s (see "Introduced Species" section).

### **Plan Actions**

Section 506(b) of the CDPA provides for hunting, fishing and trapping within Mojave National Preserve, in accordance with applicable Federal and State laws. Congress also clearly provided the NPS with a mandate in our 1916 Organic Act, to preserve wildlife, and other resources within park units. They also reiterated in the CDPA our mandate to preserve wildlife by affording the new Preserve full recognition and statutory protection to establish periods when, no hunting, fishing, or trapping will be permitted for reasons of public safety, administration, or compliance with provisions of applicable law.

Therefore, it is appropriate to recognize public safety and resource protection issues and to balance the mandate from the CDPA with the NPS resource

preservation and visitor enjoyment mission. The goal is to provide better protection to desert tortoise and other park resources and to enhance visitor safety. It is also to strike a balance with the mission of the park, which is preservation of resources. The NPS goal is to provide opportunities for hunters to take game species during the fall and winter, while also providing a park experience with no hunting or shooting during the spring and summer.

Hunting will follow California Department of Fish and Game (CDF&G) regulations. The Preserve will seek the following special regulations:

- In accordance with the Desert Tortoise Recovery Plan hunting would be limited to upland game birds (mourning dove, quail, chukar), cottontails, jackrabbits, and big game (deer and bighorn sheep) during their designated CDF&G seasons. Cottontails and jackrabbits may be hunted only from September through January.
- The hunting season for the Preserve will be from September 1 to January 31 (except through the first Sunday in February for bighorn sheep). This is the same season as the Providence Mountains State Recreation Area (Section 260.1 California Hunting Regulations, 1999).
- Use of hunting dogs will be allowed in accordance with State hunting regulations, and to protect visitors and wildlife, dogs must be in the owner's control at all times.
- For public safety, shooting of rifles will not be allowed within one mile of Kelso Depot and Kelso Dunes.
- CDF&G regulations regarding shooting near public buildings and paved roads would apply.
- Target or random shooting (plinking) is not allowed anywhere in the Preserve.

Trapping within the Preserve will follow California's 1998 Proposition 4 to the extent that it does not conflict with federal wildlife management. In very limited circumstances the superintendent will allow trapping by designated individuals to remove (trap or shoot) animals that are a hazard to visitors or park resources under the authority provided by 16.U.S.C.3.

The collection of amphibians and reptiles with a fishing license will not be allowed in Mojave National Preserve since it is in conflict with administration of the area. Fishing will follow existing CDF&G fishing regulations, except the collection of nongame birds, reptiles, amphibians, and inverte-



brates will not be permitted without a valid NPS scientific collection permit issued under NPS regulations (CFR 36 2.2 b.4 & 2.5.a).

## **Hiking**

### ***Background***

Many opportunities for day and overnight hiking exist. There are two developed trails: one between Mid Hills and Hole-in-the-Wall campgrounds, and the second a two-mile roundtrip to Teutonia Peak from Cima Road. There are other hiking opportunities — an abandoned road in Caruthers Canyon leads to an old gold mine, Kelso Dunes, and a trail in Piute Canyon leads along sections of the original Mojave Road and into the wash and eventually ends at Piute Gorge. Several former roads now in wilderness areas are closed to vehicle use; such roads may offer opportunities for hiking into Cow Cove, Castle Peaks, and other areas.

### ***Plan Actions***

Hiking is encouraged throughout the Preserve, both on developed trails and cross-country. Groups and organized events will need to obtain a permit. The backcountry/wilderness management plan will address trail use by hikers, equestrians, bicycles, and visitors with disabilities. The plan will be guided by the goal of increasing the diversity of recreational opportunities for the above activities in appropriate locations. Until completion of the plan, all trails will be open for use by hikers and equestrians, except where management problems were identified and restrictions needed to be established.

## **Equestrian Use**

### ***Background***

Horseback riding occurs in the Preserve at several locations. A group called the East Mojave Scenic Area Trail Riders has defined routes out of the Hole-in-the-Wall area that lead into Round, Pinto, Gold and Lanfair Valleys. Watson and Woods washes also serve as routes to Caruthers and Black canyons. Trails often follow old roads or washes or go cross-country. These routes are not marked by signs, so the experience of using them is an informal adventure. The amount of use is unknown at this time.

### ***Plan Actions***

All trails will be open for use by hikers and equestrians, except where management problems were identified and restrictions needed to be established. Horses may also travel cross-country. Groups and

organized events will need to obtain a permit. Large horse groups may be restricted to existing roads.

## **Bicycling**

### ***Background***

Mountain bike use in the Preserve is unknown at this time. Bicyclists have recorded their names in the Mojave Road register, indicating their use of this route. Mountain biking is the third fastest growing equipment-related outdoor activity in the country, as of 1995. Offroad ridership has increased nationally by 20% every year since 1990. In 1995, an estimated 2.5 million to 3 million of those riders were classified as avid trail cyclists.

### ***Plan Actions***

Bicycles will be allowed on all open roads, but not on single-track trails, in wilderness, or off existing roads. The backcountry/wilderness management plan will consider the feasibility of designating dirt roads as bicycle routes. Groups and organized events will need to obtain a permit.

## **Motorcycles and ATVs**

### ***Background***

Occasional illegal use occurs on the Kelso Dunes and the Soda Lake area, adjacent to the BLM's off highway vehicle area at Rasor. The Preserve has undertaken a number of activities to try and eliminate these illegal uses. Street legal motorcycles do utilize park roads regularly, including both pavement and backcountry dirt roads. Organized groups have been permitted to ride the Mojave Road.

### ***Plan Actions***

Street legal and licensed vehicles are permitted on roads in the Preserve, when operated by a licensed driver in accordance with State law and NPS regulations. All terrain vehicles are not permitted on any paved roads in the Preserve. Motorcycles must have mufflers that permit normal conversation when the engine is idling. Groups and organized events will need to obtain a permit.

## **Aircraft**

### ***Background***

There are no designated airstrips in the Preserve on public lands.

### ***Plan Actions***

Landing of aircraft on roads, dry lakes, or other

areas of the Preserve is not allowed. Use of private aircraft must be in accordance with FAA regulations, which provide for a recommended minimum altitude over parks of 2,000 feet.

## **Backcountry Use and Roadside Vehicle Camping**

### ***Background***

Camping out of a vehicle has always been permitted in the Mojave, and has continued since the National Park Service began administering the area in 1994. This activity has resulted in an unknown number of traditionally used backcountry roadside campsites scattered throughout the Preserve. Roadside vehicle camping is allowed at previously disturbed campsites outside of wilderness. No improvements (such as trash containers or metal fire rings) have been made to these sites, although several contain rock fire rings.

Several abandoned structures exist on public land in the backcountry of the park and some have traditionally been used by the public for overnight camping. A good example is the Winkler Cabin off of Wildhorse Canyon road. This small, one room shack is maintained and stocked with basic emergency materials by the users. The park has not inventoried all of these structures nor determined their historic significance and value.



### ***Plan Actions***

Roadside vehicle camping will continue to be allowed only in previously used areas along open routes of travel, outside of wilderness. Vehicles may not leave the road surface at any time or park on vegetation. There are many of these existing campsites along dirt roads.

Mojave will inventory previously used campsites and prepare a backcountry/wilderness management plan that may provide additional restrictions. Until the plan is completed, the Preserve will manage roadside camping with the following conditions:

- Roadside camping will be allowed in previously used sites outside the no camping areas.
- Campsites must be more than 200 yards from any natural or constructed water source.
- Groups and organized events will need to obtain a permit.
- Vehicles must remain in previously disturbed areas. The creation of new campsites will not be allowed. Driving off roads will not be permitted.
- Campfires will be allowed in existing fire rings, or in a fire pan. Visitors are not allowed to collect firewood in the Preserve.
- Backcountry structures on public lands will remain available to the public on a first come basis.

Backcountry campers may camp anywhere in the Preserve outside of designated day use only areas but must erect their tent out of sight of paved roads.

## **Camping in High Use Areas**

### ***Background***

Although some information is available to identify potentially heavily used sites such as Caruthers Canyon, Cima Dome, Cinder Cones, Clark Mountain, Granite Pass (Kelbaker Road), and Grotto Hills, no systematic inventory of site conditions and use exists. Certainly some sites along the Mojave Road are routinely used because they have been used by organized groups for years, and/or are identified in the guidebook as good camping areas.

### ***Plan Actions***

It is proposed that designation and marking of specific campsites in locations that are consistently heavily used by individuals or groups be undertaken. Resource conditions and visitor use will be monitored to determine the need for designating sites such as Caruthers Canyon, Cima Dome, Cinder Cones, Clark Mountain, Granite Pass (Kelbaker Road), and Grotto Hills. Other locations could be identified as information on visitor use is gathered. Campsites will be marked for easy identification, but other improvements will be avoided unless they will help protect resources.

## Camping in Desert Tortoise Critical Habitat

### Background

An inventory of previously used roadside camping sites that exist in desert tortoise critical habitat has not been compiled.

### Plan Actions

In sensitive areas designated as critical habitat for the desert tortoise, vehicle-based roadside camping will be confined to a limited number of designated campsites with metal fire rings or campsite markers to identify them for use. Previously used areas will be considered first for designation. The designation of campsites will come after an inventory of natural and cultural resource conditions and existing campsites to determine the best locations.

The primary issue with roadside vehicle camping is to ensure that visitors do not disturb tortoises they encounter and, to prevent tortoises from being crushed, ensure that campers inspect underneath their vehicles before moving them to ensure tortoises have not crawled under them for shade. The park literature on camping in the backcountry will be modified to include information about the desert tortoise and actions the public should take when camping in desert tortoise habitat.

## No Camping Areas

### Background

Certain areas are designated to prohibit roadside vehicle camping to protect the Preserve's natural and cultural resources, protect the viewsheds, and reduce conflicts in visitor activities or other management objectives.

### Plan Actions

The following areas will be designated as no camping areas to avoid potential conflicts between recreational day visitors and overnight campers.

- All areas within ¼ mile of paved roads, unless formally designated as a camping area.
- The access road to the Kelso Dunes, the parking lot, and the area north of the road to the crest of the dunes, or a distance of 1 mile, and the area ¼ mile south of the road.
- All areas within ¼ mile of the access road to Zzyzx, including the visitor parking lot.
- All areas within ½ mile of Fort Piute.
- All areas within ½ mile of the Kelso Depot.

## Groups and Organized Events

### Background

Mojave National Preserve has permitted several group activities and organized events in the last few years, including Search and Rescue Training, mounted horse trail rides, Mojave Road historical driving tours, Boy Scout groups, and running/bike relay races.

### Plan Actions

A permit is required for all organized events in the Preserve, and for group activities over a certain size. Organized events may include school groups, hiking clubs, jeep tour groups, bicycle rides, motorcycle clubs, hunting clubs, scouting groups, and other similar types of group gatherings. Organized events may be required by NPS regulations (36 CFR 2.50c) to: (1) post a bond covering the costs of the event, such as restoration, rehabilitation cleanup and other costs, and (2) provide liability insurance to protect the United States against liability arising from the event. Casual group activities (non-organized) may also require a permit depending on the number of vehicles (including motorcycles, bicycles and horses) and individuals involved in the activity.

The NPS requires a permit for group activities and organized events because of several issues and concerns that may arise when groups travel and/or camp together. The purpose of the permit is to provide information to the group regarding potential impacts of their activities on park resources, private property or other park visitors. The NPS is also responsible for reviewing the environmental impacts of the activity and ensuring protection of park resources, including threatened and endangered species. The permit serves as the means of requiring information needed for the environmental review, and to stipulate certain conditions to prevent impacts.

The following questions will be reviewed to determine whether a permit is needed:

1. *Is the group activity an "organized event"?* If yes, a special use permit is needed. If no, go to question 2.
2. *Are 15 or less individuals participating in the group activity?* If yes, go to question 4. If no, go to question 3.
3. *Are more than 25 individuals involved in the group activity?* If yes, a special use permit is needed. If no, go to question 4.
4. *Are more than seven vehicles being used by the group?* If yes, a special use permit is needed. If no, a permit is not needed.

If the group size or activity requires that a special use permit be issued (see questions above), then NPS regulations require a fee be charged. Fees for a special use permit are required by regulations to be sufficient to cover all administrative costs in processing them and vary depending on the nature and purpose of the activity and the complexity of the permitting process. Organized events and group activities where the permit process, environmental review and stipulations are fairly simple and no onsite monitoring by NPS staff is deemed necessary will be charged between \$50–200. Organized events and group activities that require extensive stipulations, completion of an environmental assessment or impact statement, and/or require onsite NPS monitoring will be charged the full cost of permit processing and compliance, NPS monitoring costs and may be required to post a bond and show proof of liability insurance. Nonprofit events or group activities that provide education on natural and cultural resources of the desert may be eligible for a partial fee waiver.

## **Visitor Use Fees**

### ***Background***

Fees and their use are determined in accordance with the criteria and procedures of the Land and Water Conservation Fund Act of 1965 (sec. 4, 16 U.S.C.A. 4601-6a (Supp., 1974) and section 3, Act of July 11, 1972, 86 Stat. 461), the Recreational Fee Demonstration Program (P.L. 104-134), and regulations in 36 CFR 71. No entrance fees are collected at Mojave. Campground fees of \$12 per site per night are gathered. In addition, the park charges special use permit fees for groups and organized events, and for commercial filming. In April 2000, the National Park Service, in a partnership with the National Park Foundation, announced a new National Parks Pass. A parks pass provides entrance to all national parks for one year at a cost of \$50. Parks selling the pass will be allowed to retain \$35 for use on projects at that park. These passes are sold at all national parks and over the internet via several retail partners. Mojave sells this pass as a public service, even though an entrance fee is not required to enter the Preserve.

### ***Plan Actions***

The Preserve will continue to explore options for fee collection revenues consistent with congressional direction. An entrance fee study will be prepared in the future.

Mojave continues to sell a National Parks Pass as a public service, even though an entrance fee is not

required to enter the Preserve. The only other visitor use fees collected in Mojave National Preserve are camping fees for developed campgrounds and the group area at Hole-in-the-Wall. Fees are also collected for special use permits (such as filming, organized group outings, etc.).

## **RESEARCH AND EDUCATIONAL ACTIVITIES**

Research and education are core mission elements of the NPS national goals and of the Preserve's enabling legislation. Congress highlighted these issues in the CDPA with following passages:

These desert wildlands display unique scenic, historical, archeological, environmental, ecological, wildlife, cultural, **scientific, educational** and recreational values used and enjoyed by millions of Americans for hiking and camping, **scientific study** and scenic appreciation. (emphasis added)

Retain and enhance opportunities for scientific research in undisturbed ecosystems.

## **Education**

### ***Background***

One of the missions of the NPS is to conduct educational outreach on natural and cultural resource preservation and management. These outreach efforts extend beyond the park boundary to include classrooms of local schools in and around the park unit. Reaching youth in the classroom and educating them on resource preservation and management serves to protect parks from impacts associated with uniformed visitors pursuing activities that may harm park resources. This effort can do more to protect parks through education than an equivalent number of staff simply enforcing regulations in the park.

Parks also serve as ideal classrooms for students to learn about the natural and cultural resource values of the desert. Setting foot on sand dunes, or a cinder cone, or hiking through the Joshua tree forest on Cima Dome, are experiences that cannot be duplicated with video, slides or other means. Mojave National Preserve is an ideal natural classroom for school groups anywhere to experience and study the Mojave Desert.

### ***Plan Actions***

Mojave will maintain an active presence in local classrooms throughout the high desert. Park staff in Needles, Baker and Barstow will be made available to make presentations on particular resource topics

or to teach natural or cultural resource sessions as part of a resource preservation curriculum.

To encourage school use, Mojave will provide staff to lead specific ranger walks and talks for school groups as requested. The park will also offer educational activities for school groups at the Kelso Depot visitor center when this facility is operational. Schools will also be encouraged to utilize the park for extended classroom work, such as week long classes over spring break, where schools may bring a class and conduct an entire field class focusing on desert resources.

The University of California through the Granite Mountains Natural Reserve, and California State universities through the Soda Springs Desert Study Center, already promote school educational activities and offer specific classes for students and the general public via cooperative agreements with the park. These efforts will be encouraged and supported by the park by offering staff to assist in conducting specific activities for school groups, providing ranger led walks and talks, and by seeking grants to assist in offering these activities, particularly for low economic areas where schools would normally not be able to afford field trips.

## **Research and Permits**

### ***Background***

Mojave has long served as a scientific research area for scientists worldwide. Dozens of research studies have been conducted in the Preserve.

### ***Plan Actions***

In recognition of the legislative direction and the scientific value of parks as natural laboratories, researchers will be encouraged to use the parks for scientific studies, whenever such use is consistent with NPS policies and law. The Preserve will promote cooperative relationships with educational and scientific institutions and qualified individuals with specialized expertise that can provide significant assistance to the park. To the extent they are available, NPS facilities and staff assistance may be made available to qualified researchers and educational institutions conducting authorized studies or field classes. Mojave will cooperate with researchers and universities to identify methods and techniques that may be employed to ensure protection of research equipment and plots.

Non-NPS studies are not required to address specifically identified NPS management issues or information needs. However, these studies, including data

and specimen collection, require an NPS research/collecting permit. The studies must conform to NPS policies and guidelines regarding publication of data, conduct of studies, wilderness restrictions, and park-specific requirements pursuant to the terms and conditions of the permit. Projects must be administered and conducted only by fully qualified personnel, and conform to current standards of scholarship. NPS research/collecting permits may include requirements that permittees provide for parks, within certain timeframes, the appropriate field notes, data, information about the data, progress reports, interim and final reports, and publications derived from the permitted activities.

The National Park Service will be responsible for the review and approval of all proposals for research on Preserve lands to ensure that they conform to the management policies and the provisions of 36 CFR 2.5. The superintendent will issue permits for all research and collection. Research that conflicts with current approved research, including long-term study plots that failed to meet NPS standards, would not be approved. All specimens collected from the park must be appropriately curated and have adequate documentation of the specimen, the locality, the geologic context, and other pertinent data. Published research results are required to be provided to the park as a condition of all permits and be made available for use by park staff and the public. In FY 2000 the park issued 28 research and collecting permits.

## **Natural Resource Collections**

### ***Background***

Natural resource collections, including non-living and living specimens, and their associated field records, are managed as NPS museum collections. Guidance for collecting and managing specimens and associated field records is found in 36 CFR 2.5 and NPS guidance documents, including the museum handbook.

### ***Plan Actions***

Generally, collecting in Mojave would not be permitted if specimens could be obtained elsewhere. Living collections will be managed in accordance with the provisions of a park's resource management plan (when developed), the Federal Animal Welfare Act, and other appropriate requirements. With respect to paleontological resources, any rare or scientifically significant specimens would be collected, or stabilized and protected in situ. Associated scientific data, including geographic, geologic, and stratigraphic information, would be documented

with all fossil collecting activities. Paleontological specimens are also subject to the treatment policies for museum objects.

Commercial application of any specimens, including any components of specimens (natural organisms, enzymes, genetic materials or seeds) collected under an NPS collecting permit must be done in accordance with a cooperative research and development agreement (CRADA). Research results derived from collected specimens are to be used for scientific or educational purposes only and may not be used for commercial purposes unless the permittee has entered into a CRADA with the park. Any commercial products produced will be subject to a royalty of 10%. Sale of collected research specimens or other transfer to third parties is prohibited (Solicitor Memo date 11/3/98).

## COMMERCIAL ACTIVITIES

### Mineral Development

#### ***Background***

The Preserve was established by Congress with the provision that mining activities may occur on valid existing claims under all applicable laws and regulations administered by the National Park Service (sec. 508). The Mining in the Parks Act of 1976 (P.L. 94-429) prescribes that all activities resulting from the exercise of valid existing rights on patented and unpatented mining claims within any unit of the national park system shall be subject to regulations developed and administered by the National Park Service. The regulations governing mining on all patented and unpatented claims in park units are found at 36 CFR Part 9A, which requires operators to file a plan of operations with the National Park Service for all mineral related activities. Proposed mining operations must also meet the approval standards provided in the regulations and post a performance bond equivalent to the cost of reclamation before an operation may proceed.

Congress closed Mojave to all new mining claim location and all other forms of appropriation and disposal. Section 507 of the California Desert Protection Act withdrew the area from all forms of entry, appropriation or disposal under the public land laws; from location, entry and patent under the United States mining laws; and from disposition under all laws pertaining to mineral and geothermal leasing and the sale of mineral materials. This provision of the act is subject to valid existing rights.



The California Desert Protection Act also imposes a requirement that validity of unpatented claims be determined prior to approval of any operation (sec. 509). This section also requires an analysis of the environmental consequences of mineral extraction, a determination of the estimated acquisition costs, and the submission to Congress of recommendations on whether any valid or patented claims should be acquired. The park has certified mineral examiners and is reviewing all unpatented mining claims to determine their valid existing rights and, if necessary, to conduct a validity examination to determine if a valuable, economic discovery of mineral exists on the claims.

Currently, there are no active mining operations inside Mojave National Preserve. Two large-scale surface mining operations exist just outside the boundaries of the Preserve. The Molycorp mine, in Mountain Pass, between Clark Mountain and the Mescal Range, is a rare earths mine. Molycorp has operated since the 1950s and recently, issues with contaminated lands as a result of pipeline leakage and spills have surfaced. Molycorp is currently undergoing a revised mining plan environmental impact process, with the Bureau of Land Management as the lead agency.

Viceroy is the other large scale open pit surface mine adjacent to the park, just north of the Piute Range, in the Castle/Hart Mountain area. This very large scale, open pit and cyanide heap leaching gold mine is very visible from the Lanfair Valley area. Although the Bureau of Land Management approved a ten-year extension of the mine in 1998, recently Viceroy has indicated their intention to terminate mining within the next two years.

#### ***Plan Actions***

The Preserve will manage mineral development activities under existing laws and regulations applicable to such activities.

During the evaluation of the mining proposal, a sensitive resource analysis based on an objective analysis of physical, biological, cultural and visitor use values relative to the project mining impacts would also be initiated. No specific mining is authorized by this general management plan. Each mining proposal is required to submit a detailed mining and reclamation plan and undergo separate environmental impact analysis. Consultation for listed species and cultural resources will occur at that time. When mining is authorized, full reclamation of the site is required upon cessation of mining activity.

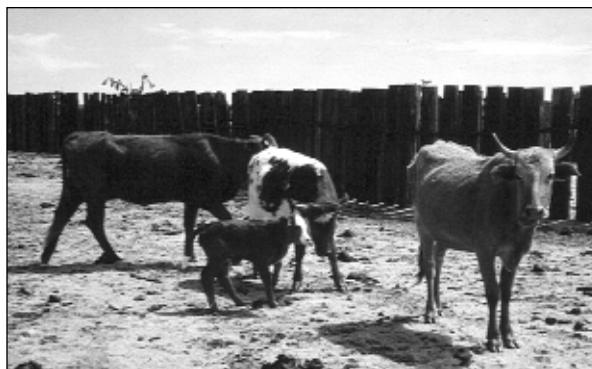
The National Park Service also regulates mineral development on valid nonfederal oil and gas interests in accordance with 36 CFR Part 9B. This involves the review of plans, impact analysis, and permitting of the proposed extraction of oil or gas on property where the surface is held by the federal government, but the mineral rights were retained by the private party when the land was acquired. Whenever a proposed mineral development fails to meet the regulatory approval standards and no alternative development scenario is feasible, the National Park Service will seek funding to initiate acquisition of the mineral rights.

## **Cattle Grazing**

### ***Background***

Cattle grazing has been a continuing activity in the Mojave Desert for well over a century. The NPS issued permits to the ranchers in 1995 to allow for continuation of grazing while the general management plan was being prepared. In FY 2001, cattle grazing on over 536,000 acres on portions of 6 previous BLM grazing allotments. Until a grazing management plan is developed, grazing is administered under an allotment management plan developed by the Bureau of Land Management. These plans integrate grazing management on the Preserve and on private and state of California parcels that are leased by the rancher. The plans establishes a grazing system for each allotment, determines the need for range developments (primarily for water), and describes a system for adjusting cattle numbers based on current range conditions. The grazing system is designed to allocate forage based on the amount and type of plant cover, moisture, and other range conditions and forage allocations for other wildlife and burros.

As of March 2001, the Crescent Peaks allotment (1,276 AUMs), the Granite Mountains allotment and permit (4,475 AUMs), the Lanfair Valley allotment



(11,560 AUMs), and the Kessler Springs allotment (7,615 AUMs) have been permanently retired, resulting in a reduction of grazing in the Preserve by 24,926 AUMs (65%) since the Preserve was established.

Four of the remaining grazing permits as of October 2001 in the Mojave National Preserve have adjoining BLM allotments that are managed by the Bureau of Land Management. These are Valley View, Valley Wells, Clark Mountain, and Piute Valley. In an amendment decision to their California Desert Conservation Area plan in late 1999, BLM agreed to retire the remnant portions of the Lanfair Valley and Piute Valley allotment if the permit is acquired and the adjoining NPS grazing permit is retired. The fate of potential remnants of the Valley View, Valley Wells, and Clark Mountain allotments are being evaluated by the BLM in a separate plan amendment EIS.

### ***Plan Actions***

Mojave's overall management goal is to achieve the permanent retirement of grazing. The California Desert Protection Act directs the Secretary of the Interior to make the acquisition of "base property" from willing sellers a priority above all other acquisitions in the Preserve. If ranchers notify the superintendent of their willingness to sell base property, the superintendent will immediately notify the Secretary of the Interior of the priority acquisition and request Land and Water Conservation Fund funding from Congress. The Preserve will also work with conservation organizations to purchase grazing permits and/or fee property from willing sellers. Once a grazing permit is purchased and the new owners (i.e. conservation organizations) requested retirement, it will be permanently retired. Cattle livestock grazing will no longer be an authorized use in retired areas for any reason.

When grazing permits are retired, ranching developments eventually be removed and site restoration undertaken, subject to environmental and cultural

compliance, including a determination of national register eligibility and section 106 compliance on all cultural features over 50 years old. The park will work with conservation organizations to ensure that willing seller grazing permits in desert tortoise critical habitat receive first consideration and that water rights are acquired with the permit.

The NPS portions of the Clark Mountain and Valley Wells grazing allotments will be acquired via third party conservation groups and retired. Cattle grazing will be removed from the area and the boundary of the Clark Mountain unit will be fenced. These permits are small pieces (about 20%) of larger BLM grazing allotments that mostly lie outside the Preserve. The Clark Mountain permit contains 371 AUMs and covers 17,500 acres. The Valley Wells permit contains 853 AUMs and covers 43,600 acres. Ranching developments would be removed and natural springs would be restored.

While acquisitions are being pursued, and for permit holders unwilling to sell, the privilege of grazing cattle on lands in the Preserve will otherwise continue to be exercised at no more than the current level (as of October 31, 1994). Grazing will be managed over the short-term under existing BLM allotment management plans, and subject to applicable NPS regulations and policies, relevant FWS Biological Opinions, and under the following conditions:

- Emphasis will be on the preservation and protection of resources and the reduction of impacts. Resource protection would be given priority over grazing activities. Grazing may be excluded from some areas if needed to protect sensitive species or habitat.
- Additional cattle grazing using an ephemeral preference above the perennial AUMs identified below for each permit will not be considered.
- Grazing will not be allowed where perennial plant utilization exceeds 30%. Grazing shall be curtailed to protect perennial plants during severe or prolonged drought.
- Grazing use will be restricted in desert tortoise critical habitat from March 15 to June 15, if adequate precipitation has not occurred to produce ephemeral plant production of 230 lbs. per acre (air dry weight). This number may be adjusted if additional research suggests a need to do so.
- Water developments will be turned off in desert tortoise critical habitat when not in use, or to move cattle off areas not having sufficient perennial or ephemeral forage. Modifications to

discourage raven use may be required.

- In cooperation with the BLM, USGS and park research communities, annual precipitation amounts and timing would be monitored in recommended locations to determine if ephemeral plant production can reasonably be expected to produce forage sufficient to allow cattle grazing. If not, cattle will be removed from desert tortoise critical habitat by March 15 of each year. The Preserve will evaluate the effectiveness of using predictive models developed by USGS and other researchers.
- Supplemental feeding (using hay or other feed) will not be allowed in accordance with existing Biological Opinions for desert tortoise. Use of feeding supplements (protein and/or salt) will be considered on a case-by-case basis.
- Water developments on acquired permits will be assessed for removal and the area restored to natural conditions.
- Ranching developments on retired permits will be removed unless determined to have historical or other value, and do not otherwise impact native wildlife.
- Ranching developments in wilderness will be reviewed for their historical significance and current need. If developments are determined necessary for current grazing permits, access will normally be allowed only via foot or horseback. Motorized access will be determined on a case-by-case basis using the minimal tool analysis described under the wilderness section.
- Permittees will be required to maintain all ranching developments associated with their grazing permits, including corrals, fences, pipelines, windmills, cattle guards, tanks, etc. at their expense. Abandoned property must be removed from the Preserve by the permittee. If not removed within timeframe identified, the NPS may charge the permittee for removal costs. No new ranching developments will be permitted unless it was determined to be beneficial to the flora and fauna, and not result in an increase in grazing over the levels current as of October 31, 1994.
- Until the grazing management plan is finalized, grazing fees will be charged on a per AUM basis using the same formula as the BLM, which is subject to annual review. In addition, a fee will be assessed for NPS costs in reviewing and issuing of a special use permit in accordance with NPS policy. Fees collected as reimbursement for special use permit issuance may be used to off-



set costs related to park management of the special use permit. Fees collected based on AUMs will be used for any purpose reasonably related to management of the grazing program, with priority given desert tortoise conservation efforts.

- Grazing permits will be reissued annually for one-year terms.
- NPS will monitor range conditions and long term plant community changes using locations and methodology currently being evaluated. Cattle may be removed from an area for an extended period if monitoring indicates that type conversion of the plant community may be occurring.
- NPS will not increase AUMs when Catellus and State lands within the permit area are acquired. However, no fencing will be required to exclude existing authorized cattle from using the acquired parcels.

Any permit that is not retired will be managed pursuant to an NPS grazing management plan. This activity plan will tier from the overall management strategy presented herein and will address specific grazing management strategies, conditions, standards, resource protection criteria, range developments, monitoring, and other program needs. Separate environmental compliance will be prepared on this plan.

## **Filming**

### ***Background***

Permits for commercial operations such as moviemaking and guided recreational tours have been applied for and granted within the Preserve. At this time, the number of permits applied for is relatively low. For instance, in FY99 only one filming permit was issued.

### ***Plan Actions***

Filming for commercial or educational purposes may be authorized, subject to NPS policies and regulations governing such activities, including wilderness restrictions. A special use permit is required for all filming activities and a fee will be assessed. Filming activities will be subject to the same rules and regulations as other activities, including no offroad driving. Filming may not be allowed in desert tortoise critical habitat during the active periods in the spring and fall, depending on the nature of the particular film shoot. All costs associated with desert tortoise surveys and onsite monitors during filming will be borne by the permittee.

## **Solid Waste Disposal**

### ***Background***

Federal law and NPS regulations (36 CFR Part 6) prohibit solid waste disposal, including existing and new landfills, in all units of the national park system. The park hauls all solid waste generated by visitors and park operations to an approved site outside the Preserve. The Baker landfill was closed by state law in 1997. The site was recontoured and fenced (including tortoise proof fencing) and is being monitored by the county. Small private dumps and illegal dumping has occurred at a number of sites throughout the Preserve. Several of these have been cleaned up by the National Park Service and this process is ongoing as cultural clearance is completed.

### ***Plan Actions***

The park will continue to haul solid waste generated by visitors and park operations to an approved site outside the Preserve. Recycling opportunities will be fully explored and implemented wherever feasible. Mojave will work cooperatively with Baker and the county to find locations outside the Preserve to relocate the existing transfer site and sewage lagoons.

## **Visitor Services**

### ***Background***

At this time, the Cima Store is the only facility-based commercial operation in the Preserve. The privately operated store on private land has a limited number of items and continues to serve customers traveling on the Kelso-Cima Road.

Special use permits are issued for commercial services such as guided tours and hunting guide services. Currently, the park issues permits annually to 2 licensed hunting guides to provide guiding service for bighorn sheep hunts.

Several commercial facilities outside the Preserve offer lodging, food, and other items. The town of Baker has several motels, gas stations, restaurants, fast-food services, and markets. Small facilities at Halloran Summit and the Cima Road exits off Interstate 15 offer various visitor services. Primm, Nevada, about 15 miles from the Preserve's north boundary, contains a major resort/casino. Nipton offers a small amount of lodging and a few camping spaces. Goffs has a small restaurant and Fenner has a gas station/market. Needles offers a broad range of services to visitors.

### **Plan Actions**

A concession contract to operate a small food service facility in the Kelso Depot is being considered. As visitation increases, a facility may be desirable outside the Depot in another building that will offer limited emergency grocery items. No other food service facilities are being considered on park lands. The park will not develop lodging facilities for visitors on park lands, but will rely on gateway communities to provide these services.

Some level of commercial services may be sought in the Kelso Depot, Cima and Hole-in-the-Wall areas to provide compatible recreation services and equipment for visitors. Services might include backcountry jeep tours (including the Mojave Road) and horseback rides. Equipment rentals that could provide for enhanced visitor use might include bicycle and camping equipment rentals. Currently, the park issues permits annually to two licensed hunting guides who provide guiding service for bighorn sheep hunts. Commercial towing services that desire to provide service inside the park boundary will need to apply for a commercial use license and post a performance bond.

## **MILITARY ACTIVITIES**

### **Background**

The Preserve is within 100 miles of five U.S. Department of Defense facilities having air operations: National Training Center at Fort Irwin, China Lake Naval Air Weapons Station, Marine Corps Air-Ground Combat Center, and Air Force Bases at Edwards and Nellis. Military aircraft from these facilities occasionally use airspace over the Preserve.

Mojave is subject to irregular and occasional such use along specified training routes. A small area of the park near Baker is under FAA designated special use airspace, called the "Silver" military operations area (MOA). This special use airspace and IR (instrument) and VR (visual) routes and are created by the Federal Aviation Administration to warn other civil aviation pilots that high speed (over 250 knots), low level (down to 200 feet above ground level) aircraft may be encountered. Slower military aircraft, such as helicopters, may be encountered anywhere over the Preserve. The Desert Managers Group has established an interagency Overflight Working Group comprised of land managers and military staff to identify and attempt to resolve overflight issues.

### **Plan Actions**

The California Desert Protection Act (CDPA) authorizes continued low-level overflights by military aircraft over new parks and wilderness areas. Section 802 provides:

Nothing in this Act, the Wilderness Act, or other land management laws generally applicable to the new units of the National Park or Wilderness Preservation Systems (or any additions to existing units) designated by this Act, shall restrict or preclude low-level overflights of military aircraft over such units, including military overflights that can be seen or heard within such units.

Mojave will monitor military overflights and attempt to document where conflicts with visitor use or resource protection may exist. The park will seek to minimize such conflicts wherever possible, while recognizing the military's mission and authorized use. The park will work closely with the airspace manager and the Overflight Working Group to identify conflicts and implement solutions.

